



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/801,674

03/09/2001

S. Joseph Campanella

40783

1271

7590

12/29/2004

John E. Holmes

Roylance, Abrams, Berdo & Goodman, L.L.P.

Suite 600

1300 19th Street, N.W.

Washington, DC 20036

EXAMINER

NGUYEN, STEVEN H D

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/801,674

Applicant(s)

CAMPANELLA ET AL.

Examiner

Steven HD Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/9/01</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. As claim 21, lines 1-2, "said second service control header" is vague and indefinite because it does not refer to any previous element.

There is insufficient antecedent basis for this limitation in the claim.

### *Double Patenting*

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 4, 7, 10, 11, 19, 17, 23 and 24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-44 of U.S. Patent No.

Art Unit: 2665

6201798. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application's claims merely broaden the scope of the patented claims by not claiming some elements or by claiming some extra elements (i.e at least ... plurality of field ... is generated or output the service according the selection or the first service component is mpeg signal is well known in the art). The application's claims are nearly identical in every other respect to the patent claims. Therefore, the application's claims are simply broader versions of the patented claims. It is the examiner's position that broadening the patented claims by not claiming some of claim elements or by claiming some extra element of the patented claims would have been obvious to one of ordinary skill in the art in view of the patented claims. It is important to note that the instant application is a continuation of the application, which yielded the patent (US 6201798) used herein as the basis for the obviousness type of double patenting rejection. The applicant is attempting to broaden the parent application's claims by eliminating some of the claim elements in the continuation at issue here. If allowed, the application at bar would unjustly extend applicant patent protection beyond the statutory period while, at the same time, granting broader protection to the application.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

Art Unit: 2665

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi (USP 4922483).

Regarding claims 1 and 4, Kobayashi discloses receiving a service including four audio data blocks of a minimum bit rate (service components) from music sources and generating a broadcast frame (Fig. 4B) by adding a service header (Fig. 4A) to the data blocks. As shown in Fig. 4A and 4B, the frame includes 4 low order headers ( $n \times Q$  bits) for controlling the reception of the data blocks ( $n \times P$  bits) at the receivers. See also Fig. 3, col. 3, lines 20-44.

Regarding claim 2, Kobayashi discloses interleaving the services at col. 3, lines 12-14.

8. Claims 7-13 and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wasilewski (USP 5400401).

Regarding claims 7-10, Wasilewski discloses receiving a plurality of service components such audio, video (Col. 5, lines 30-49) and converting the service component into digital signal and using MPEG encoder (Col. 5, lines 49-66) to compress it and appending a control service header for each component in order to control the receiving service at the receivers (Fig 4, Ref 64, service header).

Regarding claims 11-13 and 15-19, Wasilewski discloses a frame which includes a service control header (Fig 4 discloses Ref 64, encryption information, see col. 13, lines 27-53 and video 82 and audio field 78) that contains a encryption control data for controlling reception of the services at the remote receivers, wherein service component is audio, video (Fig 4) and a frame includes a preamble for using to synchronize (Fig 4, Ref VSYNC 42) and dividing service bit rate into a plurality of minimum bit rate (col. 9, lines 6 to col. 10, lines 11, 8 channel, each

Art Unit: 2665

has a minimum rate 975 bits) and bits for displaying on display device “channel number or title”; auxiliary field (fig 4, Ref 70).

9. Claims 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimasaki (USP 3789142).

Shimasaki et al. discloses a satellite 20 which receives broadcast voice channels (prime rate channels) from earth stations S (Fig. 2A, routes each the voice channels and multiplexes the voice symbols to time slots of a down link frame (Fig. 2B). The claimed “last prime rate channel flag” reads on the unique sync word AB. See col. 5 and 6.

10. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Campanella (USP 5864546 or 5867490).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Campanella discloses receiving a service (Fig 3, Ref 60-64, 68 and 72), generating broadcast frames with control headers (Fig. 4, Ref 102), receiving channels from broadcast stations, routing prime rate channels, multiplexing data into time slots, and appending control words (Fig 5). See col. 6, 7, 9, 13 and 14.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Schuchman (USP 5283780).

Regarding claim 3, Kobayashi does not explicitly recite adding padding bits. Schuchman shows the use of convolutional encoder 10 with code rate  $\frac{1}{2}$  adding redundant bits to data bits. See Fig. 1. To use convolutional code with code rate  $\frac{1}{2}$  at the encoder 11 of Kobayashi for coding the data would have been obvious to one of ordinary skill in the art since Kobayashi explicitly suggests adding error correction code (col. 3, lines 12-14).

Regarding claims 5-6, Kobayashi does not explicitly the bit rates and frame structure. However, it would have been obvious to one of ordinary skill in the art to use the bit rate between 16 Kbps and 128 Kbps and a frame period of 432 milliseconds would have been obvious to one skilled in the art since these values are commonly used in the art to transmit digital data.

13. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Kloper (USP 5790171).

Kobayashi discloses receiving a plurality of service “music source” and generating a broadcast bit stream frame by appending a service control header for controlling the service components (See also Fig. 3, col. 3, lines 20-44 and Fig 4). However, Kobayashi does not recite

Art Unit: 2665

MPEG coding scheme. In the same field of endeavor, Klopfer shows an MPEG encoder using MPEG encoding (Fig 4, Ref 14). To use the MPEG encoder in place of low order encoders of Kobayashi would have been obvious to one of ordinary skill in the art because the MPEG encoding schemes have been industrial standards and widely used to encode audio and video signals.

14. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski in view of Campanella (USP 4792963).

Wasilewski fails to disclose L is selected from a group of 16, 32, 48, 64, 80, 96, 112 and 128. However, it would have been obvious to one of ordinary skill in the art to use the bit rate between 16 Kbps and 128 Kbps would have been obvious to one skilled in the art since these values are commonly used in the art to transmit digital data.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wasilewski (USP 5319707) discloses a method and system for multiplexing a plurality of services into a frame for broadcasting to the receivers.

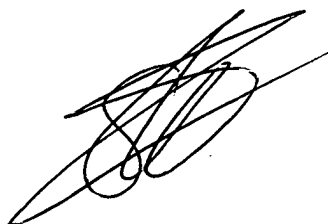
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.



Art Unit: 2665

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Steven HD Nguyen', written over a horizontal line.

Steven HD Nguyen  
Primary Examiner  
Art Unit 2665  
12/16/04